

AMENDMENT

IN THE CLAIMS:

1. (CURRENTLY AMENDED) A gear reduction unit comprising:
a drive shaft;
an electric motor that rotatably drives the drive shaft;
a reduction gear driven by the drive shaft;
a geared motor housing that houses the reduction gear;
a magnet disposed on the drive shaft; and
~~a sensor disposed in proximity to the magnet; and~~
~~a removable connector that supports the sensor and carries current to the electric motor;~~
that is removeably connected to the geared motor housing when the geared motor housing is assembled to the electric motor, wherein the connector includes a current carrying feature for feeding current to the electric motor and a sensor disposed proximate to the magnet.
2. (CURRENTLY AMENDED) The gear reduction unit according to claim 1, wherein a ~~maximum~~ distance between the sensor and the magnet is less than 4 mm.
3. (CURRENTLY AMENDED) The gear reduction unit according to claim 2, wherein ~~a~~ the distance between the sensor and the magnet is 2 mm.
4. (ORIGINAL) The gear reduction unit according to claim 1, wherein the magnet is a ring having at least one North pole and at least one South pole and is polarized transverse to a longitudinal axis of the drive shaft.
5. (ORIGINAL) The gear reduction unit according to claim 4, wherein the magnet has a plurality of North poles and a plurality of South poles.
6. (CURRENTLY AMENDED) The gear reduction unit according to claim 1, wherein the ~~removable~~ connector comprises a printed circuit board defining a plane, wherein the sensor is fixed to the printed circuit board and offset relative to the plane formed by the printed circuit board.

7. (PREVIOUSLY PRESENTED) The gear reduction unit according to claim 6, further comprising connection tabs that are fitted to the sensor to fix the sensor to the printed circuit board.

8. (CURRENTLY AMENDED) The gear reduction unit according to claim 6, wherein the ~~removable~~-connector further comprises electrical supply contacts to supply the current to the electric motor.

9. (CURRENTLY AMENDED) The gear reduction unit according to claim 1, wherein the ~~removable~~-connector includes a guide hole and the sensor is disposed in the guide hole.

10. (CURRENTLY AMENDED) The gear reduction unit according to claim 1, wherein the electric motor comprises a housing and the ~~removable~~-connector comprises a case, wherein an interface between the housing and the case forms a watertight seal.

11. (ORIGINAL) The gear reduction unit according to claim 1, wherein the sensor is a Hall effect sensor.

12. (CURRENTLY AMENDED) A connector for a gear reduction unit comprising:
a printed circuit board defining a plane;
a sensor fixed to the printed circuit board and offset relative to the plane formed by the printed circuit board, wherein the sensor is fitted with connection tabs that offset the sensor; and
a case housing the printed circuit board and the sensor.

13. (CURRENTLY AMENDED) The connector according to claim 12, ~~further comprising wherein the~~ connection tabs that are fitted to the sensor to fix the sensor to the printed circuit board.

14. (CURRENTLY AMENDED) The connector according to claim 12, further comprising electrical supply contacts for supplying current to a motor in ~~the~~ a gear reduction unit.

15. (PREVIOUSLY PRESENTED) The connector according to claim 12, wherein the case includes a guide hole and wherein the sensor is disposed in the guide hole.

16. (ORIGINAL) The connector according to claim 12, wherein the sensor is a Hall effect sensor.

17. (CURRENTLY AMENDED) The gear reduction unit as recited in claim 1, wherein the ~~removable~~-connector includes a releasable fastener that releasably secures the ~~removable~~-connector in the gear reduction unit.